CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER 89-135
NPDES PERMIT NO. CA0027693

REISSUANCE OF
WASTE DISCHARGE REQUIREMENTS FOR

ASHLAND CHEMICAL COMPANY
ELECTRONIC AND LABORATORY PRODUCTS DIVISION
INDUSTRIAL CHEMICALS AND SOLVENTS DIVISION
NEWARK, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. Ashland Chemical Company, (hereinafter called the discharger), has submitted an application dated July 10, 1989, for reissuance of waste discharge requirements under the National Pollutant Discharge Elimination System (NPDES) Permit No. CA0027693 for its plant located at 8600 Enterprise Drive, Newark, California, in Alameda County.

2. The discharger is currently subject to compliance with its NPDES permit Order No. 74-123, as reissued by Order No. 84-79 on November 21, 1984.

3. The discharger owns and operates a chemical packaging and distribution facility at its Newark site. There are two plant operations at the site, namely: (1) Electronic and Laboratory Products (E&LP) Division, which is primarily a blending and packaging operation for the distribution of inorganic chemicals, except for the production of ammonium fluoride; and (2) Industrial Chemicals and Solvents (IC&S) Division, which stores, blends, repacks, and distributes various organic chemicals, including some chlorinated hydrocarbon compounds.

   The bulk chemicals and solvents are received at the plants by railroad tank cars, box cars, and tank and van-type delivery trucks. The plant products are distributed to customers in bulk or packaged form via tank trucks and some in 55-gallon drums and/or smaller containers. Attendent to the plants' activities are a truck loading rack, railcar unloading areas, truck dock yard, tank farm, warehouse, truck unloading pad, and drum storage areas.

4. The discharger submitted a Best Management Practices (BMP) Plan dated October 28, 1988, and a revision to the plan on March 20, 1989. The plan presents the basic information required to be addressed by a BMP plan and identifies the improvements that will be undertaken at the facility to insure that operation activities are performed in a manner that will preclude loss, spill or release of any product to the environment. The plan also addresses the rainfall incident upon various areas and provides a means of insuring that the discharge either to surface or groundwater would not violate established standards.

5. Based on the dischager's BMP, Waste 001 will consist of impounded stormwater runoff from locations surrounding the transfer areas, the drum storage area, and the tank farm area. The impounded stormwater will be tested to ensure it meets permit requirements, before it is pumped to an above-ground stormwater holding tank from which it is ultimately discharged to the adjacent drainage ditch which flows to Plummer Creek, a tributary to San Francisco Bay. Stormwater that is unacceptable for discharge will either be hauled off-site for treatment and disposal, or treated on site to meet requirements and retested prior to discharge.

   Product or waste transfer areas will be curbed to prevent release of a material from within and will be covered to exclude rainfall. The remaining areas of the property not subject to contamination from plant operations would be graded where necessary to promote stormwater drainage off the site.

   The E&LP plant maintains an acid drumming and loading pad and a neutralization pit in the yard. This area is addressed in the BMP for upgrading to provide adequate spill controls and containment system and to ensure segregation of this area from the plant yard drainage system.

6. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for Plummer Creek and San Francisco Bay.

7. The beneficial uses of San Francisco Bay, Plummer Creek, and contiguous water bodies are:

   a. Contact and noncontact water recreation
   b. Wildlife habitat
   c. Warm and cold fresh water habitat
   d. Fish migration and spawning
   e. Preservation of rare and endangered species
   f. Industrial service and process supply
   g. Shellfish harvesting
   h. Navigation
   I. Commercial and sport fishing

8. The Basin Plan prohibits discharge of any wastewater which has particular characteristic of concern to beneficial uses at any point at which the wastewater does not receive a minimum initial dilution of 10:1, or into any nontidal water or dead-end slough or similar confined waters, or its immediate tributaries.

9. The Basin Plan provides that exceptions to this discharge prohibition will be considered for discharges where:

   a. an inordinate burden would be placed on the discharger relative to beneficial uses protected and an equivalent level of environmental protection can be achieved by alternate means, such as an alternative discharge site, a higher level of treatment, and/or improved treatment reliability; or

   b. a discharger is approved as a part of a reclamation project; or

c. it can be demonstrated that net environmental benefits will be derived as a result of the discharge.

10. The Board grants an exception to the Basin Plan noted in Finding 9.a. above, on the condition that the discharger document that an equivalent level of environmental protection can be achieved through alternate means by:

    a. providing the necessary treatment system with adequate containment capacity to allow testing and treatment of the wastewater to ensure it meets effluent limits prior to discharge.

    b. developing a facility operation plan to ensure proper operation and maintenance of all treatment and control facilities and systems installed or used to achieve compliance with the terms and conditions of this permit.

    c. completion of the above tasks and their implementation by no later than October 31, 1989.

    d. implementation of the Best Management Practicies Plan referenced in Finding 5. as soon as practicable, but no later than October 31, 1989.

11. Effluent limitation and toxic effluent standards established pursuant to Sections 301, 304, and 307 of the Clean Water Act and amendments thereto are applicable to the discharge.

12. Effluent limitation guidelines requiring the application of best available technology economically achievable (BAT) for this point source category have not been promulgated by the U. S. Environmental Protection Agency. Effluent limitations of this Order are based on the Basin Plan, State Plans and Policies, current plant performance, and best professional judgment. The limitations are considered to be those attainable by BAT, in the judgment of the Board.

13. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21000 of Division 13) of the Public Resources Code (CEQA) pursuant to Section 133889 of the California Water Code.

14. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

15. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that Ashland Chemical Company, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. The discharge of all process wastes, washdown water, solvents, oils, other products of petroleum origin, organic and inorganic chemicals to state waters is prohibited, except in accordance with the terms of this Order.

2. The discharge of wastewater, including stormwater from the acid loading and drumming area and the neutralization pit to surface and/or ground waters of the state is prohibited.

3. The discharge of all conservative toxic and deleterious substances above those levels which can be achieved by a program acceptable to the Board is prohibited.

B. Effluent Limitations

1. The discharge of all stormwater shall be in accordance with the stormwater management plan addressed in the Best Management Practicies Plan referenced in Finding 4.

2. The discharge of Waste 001 shall not contain constituents in excess of the following limits:

| Constituents | Units | Average Monthly | Average Weekly | Maximum Daily |
|---|---|---|---|---|
| Settleable Solids | ml/l/hr | 0.1 | | 0.2 |
| Suspended Solids | mg/l | 30 | 45 | |
| Oil and Grease | mg/l | 10 | | 20 |
| pH | pH units | | | 6.5 - 8.5 |
| Arsenic | ug/l | | | 20 |
| Cadmium | ug/l | | | 10 |
| Total Chromium | ug/l | | | 11 |
| Copper | ug/l | | | 20 |
| Lead | ug/l | | | 5.6 |
| Mercury | ug/l | | | 1 |
| Nickel | ug/l | | | 7.1 |
| Silver | ug/l | | | 2.3 |
| Zinc | ug/l | | | 58 |

| Constituents | Units | Average Monthly | Average Weekly | Maximum Daily |
|---|---|---|---|---|
| Phenols | ug/l | | | 500 |
| PAHs [1] | ug/l | | | 15 |
| VOCs [3] (per constituent) | ug/l | | | 5.0 |
| Total VOCs | ug/l | | | 100 |
| TPH [2] | ug/l | | | 50 |

1) Total PAH's - total polynuclear aromatic hydrocarbons as detected by EPA Method 610.

2) Total Petroleum Hydrocarbons - as oil as measured by Modified EPA test method 8015.

3) Volative Organic Carbons - as measured by EPA test methods 601 and 602.

3. The discharge of Waste 001 shall meet the following limits of toxicity:

The survival of three-spine stickleback and rainbow trout (or fathead minnow) in a 96-hour static-renewal bioassay of the effluent as discharged shall achieve a median of 90% survival for three consecutive samples and a 90 percential value of not less than 70% survival for ten consecutive samples.

C. Receiving Water Limitations

1. The discharge of stormwater shall not cause the following conditions to exist in waters of the State at any place.

a. Floating, suspended, or deposited macroscopic particulate matter or foam;

b. Bottom deposits or aquatic growths;

c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

d. Visible, floating, suspended, or deposited oil or other products or petroleum origin;

e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the

receiving waters or as a result of biological concentration.

2. The discharge of Waste 001 shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the surface:

| | | |
|---|---|---|
| a. | Dissolved Oxygen | 5.0 mg/l minimum - median for any three consecutive months shall not be less than 80% saturation. When natural factors cause less concentration(s) than specified above, then discharge shall not cause further reduction in the concentration of dissolved oxygen. |
| b. | Dissloved Sulfide | 0.1 mg/l maximum. |
| c. | pH | Variation from natural ambient pH by more than 0.5 pH units. |
| d. | Un-ionized Ammonia | 0.025 mg/l as N, annual median. 0.4 mg/l as N, maximum. |

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments hereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. PROVISIONS

1. Neither the treatment nor the discharge of pollutants shall create a nuisance as defined in the California Water Code.

2. The requirements prescribed by this Order supersede the requirements of Orders 74-123 and 84-79. Orders 74-123 and 84-79 are hereby rescinded.

3. The discharger shall amend the BMP whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of hazardous or toxic pollutants.

4. If the BMP proves to be ineffective in achieving the generial objectives of preventing the release of significant amounts of toxic or hazardous pollutants to surface waters, the permit and/or the BMP Plan shall be subject to modification to incorporate revised BMP requirements.

5. The discharger shall comply with all sections of this Order imme-

diately upon its adoption by the Board, except as provided in Provision 6. below.

6. The discharger shall comply with the effluent limitations and prohibitions of this Order by October 31, 1989. Compliance shall be achieved in accordance with the following time schedule:

   a. Submit a workplan and progress report pursuant to Finding 10.a. plan by September 15, 1989.

      Submit a report by October 15, 1989 on completion of the above.

   c. Submit a report to the Executive Officer by November 15, 1989 on completion and implementation of all tasks under Finding 10. by October 31, 1989.

7. The discharger shall prepare and update by August 30 of each year, a contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the Calfifornia Water Code.

8. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Board pursuant to EPA regulations 40 CFR 122.62, 122.63, and 124.5. Upon review of the data submitted as part of this program, the Board may at any time, revise the Order to include effluent limits for those constituents determined to be of concern.

9. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions", dated December 1986.

10. All applications, reports, or information submitted to the Regional Board shall be signed and certified pursuant to Environmental Protection Agency regulations (40 CFR 122.41K).

11. Pursuant to Environmental Protection Agency regulations (40 CFR 122.42(a), the discharger must notify the Regional Board as soon as it knows or has reason to believe (1) that they have begun or expect to begin the use or manufacture of a pollutant not reported in the permit application, or (2) a discharge of toxic pollutants not limited by this permit has occurred, or will occur, in concentrations that exceed the specified limits.

12. This permit shall be modified or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b) (2) (c), and (d), 303, 304(b) (2) and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

   a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

b. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

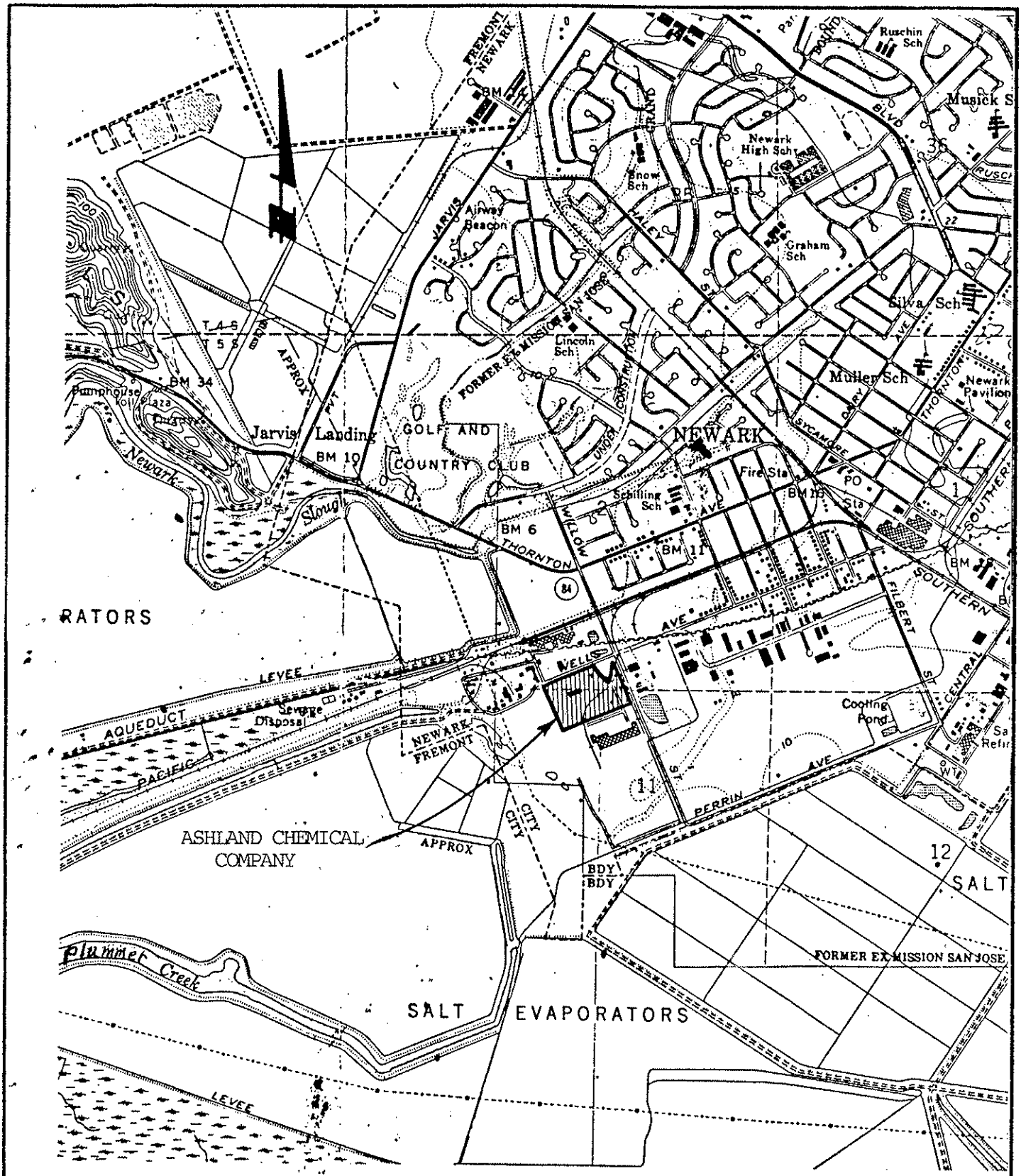
13. This Order expires August 16, 1994. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

14. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective ten days after the date of its adoption, provided the Regional Administrator for the Environmental Protection Agency has no objection.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on August 16, 1989.

STEVEN R. RITCHIE
Executive Officer

Attachments:
Location Map
Standard Provisions &
Reporting Requirements, December 1986
Self-Monitoring Program
Resolution No. 74-10




STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ASHLAND CHEMICAL COMPANY
NEWARK, ALAMEDA COUNTY

| DRAWN BY: | DATE: | DRWG. NO. |
|---|---|---|

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

# SELF-MONITORING PROGRAM

FOR

ASHLAND CHEMICAL COMPANY

NEWARK,, ALAMEDA COUNTY

NPDES NO. CA0027693

ORDER NO. 89-135

CONSISTS OF

PART A, (DATED 12/86)

AND

PART B

PART B

## I. DESCRIPTION OF SAMPLING STATIONS

### A. IMPOUNDED RUNOFF

Impounded stormwater runoff from locations surrounding the transfer areas, the drum storage area, and the tank farm prior to discharge to the stormwater holding tank.

### B. EFFLUENT

| Station | Descriptions |
|---|---|
| 001 | At a point in the outfall for the stormwater discharge from the holding tank, at the northwest side of the plant property, between the point of discharge into the drainage ditch along Hickory Street and the point at which all waste tributary to that outfall is present. |

## II. SCHEDULE OF SAMPLING, MEASUREMENTS, AND ANALYSES

1. The schedule of sampling, measurements and analysis for stations Impounded Stormwater and E001 shall be that given as Table I.

2. Sample collection, storage and analysis shall be performed according to the latest 40 CFR Part 136 or other methods approved and specified by the Board.

## III. MISCELLANEOUS REPORTING

1. Strip charts of the effluent pH record must be retained with other laboatory records, and made available for inspection by Board staff.

2. The discharger shall retain and submit (when required) the following information concerning the monitoring program for organic and metallic pollutants.

   a. Description of sample stations, times and procedures.

   b. Description of sample containers, storage and holding time prior to analysis.

   c. Quality assurance procedures together with any test results for replicate samples, sample blanks, and any quality assurance tests, and the recovery percentages for the internal and surrogate standards.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 89-135.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revision will be ordered by the Executive Officer.

STEVEN R. RITCHIE
Executive Officer

8/16/89
Effective Date

Attachment: Table I

TABLE I

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

| Station | Analyses | Unit | Type of Sample | Frequency of Analysis |
|---|---|---|---|---|
| Impounded Runoff and E001 | Flow | gpd | continuous | continuous |
| | Oil & Grease (1) | mg/l<br>kg/day | grab | monthly |
| | Total Suspended Solids | mg/l | grab | monthly |
| | Settleable Solids | ml/l/hr | grab | monthly |
| | pH | pH units | grab | monthly |
| | Dissolved Oxygen | mg/l & % saturation | grab | monthly |
| | Table 4-1 Metals:<br>Arsenic<br>Cadmium<br>Total Chromium<br>Copper<br>Lead<br>Mercury<br>Nickel<br>Silver<br>Zinc | ug/l<br>kg/day | grab | monthly |
| | Toxicity 96-hr. (2) | % survival | grab | 2/year |
| | VOCs as measured by: | | | |
| | EPA Methods 601 and 602 (3) | ug/l | grab | monthly |
| | EPA Method 625 (3) | ug/l | grab | monthly |

TABLE I (continued)

| Station | Analyses | Unit | Type of Sample | Frequency of Analysis |
|---|---|---|---|---|
| Impounded Stations and E001 | EPA Method 610 (3) for PAH's | ug/l | grab | monthly |
| | Modified EPA Method 8015 for Petroleum Hydrocarbon as oil | ug/l | grab | monthly |
| | All applicable standard observations | | | monthly |

LEGEND FOR TABLE I

continuous - Continuous measurement during discharge. The flow rate for each month should be estimated if not measured and included in the report. Report reason for zero discharge during wet weather months.

grab - Take a minimum of 3 grab samples on the day of sampling. The first sample for each day shall be taken during the first hour of discharge, and the others at equal time intervals thereafter.

monthly - Monthly during the first rainfall

2/year - Once in the first quarter and fourth quarter of the year

FOOTNOTE

(1) Oil and Grease sampling shall consist of 3 grab samples taken at 2-hour intervals during the sampling day, with each grab being collected in a glass container. The entire volume of each sample shall be composited prior to analysis. Each glass container used for sample collection or mixing shall be thoroughly rinsed with solvent rinsings as soon as possible after use, and the solvent rinsings shall be added to the composite wastewater sample for extraction and analysis.

(2) The toxicity test shall be a static-renewal test using two test fish species, stickleback, and rainbow trout or fathead minnow.

(3) Identify the ten largest peaks other than the priority pollutants listed in the method.